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ABSTRACT

Based on a national survey of 4-year state colleges and universities, this study presents information concerning the involvement of such institutions in less-than-baccalaureate level technical education. Data for the study were gathered from 329 institutions through the use of an information form and pertained to both off-campus and on-campus programs. Analysis of the data indicates that: (1) Institutions of higher education are involved to a considerable extent in less-than-baccalaureate technical programs, and their involvement increased sharply during the period 1967-71, (2) The less-than-baccalaureate level programs offered in the participating institutions were mainly 2-year programs as are those programs currently in the planning stage, and (3) The most significant trend in the development of less-than-baccalaureate level technical programs from 1967-71 was the very sharp increase in both the number of programs offered and the student enrollment in these programs. (JS)

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LESS-THAN-BACCALAUREATE LEVEL TECHNICAL EDUCATION PROGRAMS IN HIGHER EDUCATION

Eastern Kentucky University

Richmond, Kentucky

In Cooperation with the

American Association of State Colleges and Universities

One Dupont Circle

Washington, D. C.

and the

National Association of State Universities and Land-Grant Colleges

One Dupont Circle

Washington, D. C.

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FOREWORD

The results of this study are provided as an indication of the current and projected future involvement of institutions of higher education in technical education programs of less-than-baccalaureate level. The rapid growth in programs and enrollments since our 1967 study indicates that a large and increasing number of AASCU and NASULGC institutions have and are continuing to make commitments to programs of less-than-baccalaureate level.

Credit is due Mr. Allan W. Ostar, Executive Director, American Association of State Colleges and Universities and Dr. John D. Rowlett, Vice President for Research and Development, Eastern Kentucky University, for their initial and continuing interest and support throughout this project. Credit is also due Dr. William E. Sexton, Dean, College of Applied Arts and Technology, Eastern Kentucky University and Dr. Albert Spencer, Department of Industrial Education, Eastern Kentucky University, who conducted the investigation and prepared the final report.

Finally, I wish to acknowledge my special indebtedness to the individual representatives of the many colleges and universities who provided the data for this report. Without their interest and assistance, this project would not have been possible.

ROBERT R. MARTIN, President
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INTRODUCTION

The historic and current contributions of state colleges and universities to higher education in the fields of teaching, public service, and research is generally understood. In recent years, however, these institutions have begun to make a significant, but little publicized contribution to the preparation of technicians, at the associate degree level, in a wide variety of fields ranging from nursing to law enforcement to pollution control.

It is often thought that only post secondary vocational schools and community colleges are concerned about the preparation, at the less-than-baccalaureate level, of technicians who are badly needed in our complex society, but those involved in state colleges and universities have been aware of their institutions' increasing role in these programs for some time. Unfortunately, there has been very little concrete information made public regarding the nature and extent of less-than-baccalaureate level programs in four-year state colleges and universities. This study, along with its predecessor (conducted in 1967), presents vital information concerning the extent of the involvement of these institutions in less-than-baccalaureate level technical education, as well as the nature of the programs.

The specific questions the study attempted to answer were as follows:

1. To what extent are member institutions of the AASCU and the NASULGC involved in technical education programs of less-than-baccalaureate level on the main campus and in off-campus centers?

2. What is the nature of current technical education programs of less-than-baccalaureate level in terms of duration, student enrollment, and occupational areas represented?

3. What is the nature of planned technical education programs in terms of duration and occupational areas represented?

4. To what extent will technical education programs of less-than-baccalaureate level increase or decrease by 1975?

5. What trends can be identified regarding the development of technical education programs of less-than-baccalaureate level during the period 1967-70?

Definition of Terms

For the purposes of this study, technical education programs were defined as those occupational curricula that combine general education with technical information and practical skill development experiences necessary for individuals who wish to enter into and subsequently succeed in occupations that require an understanding of the laws of science and technology and their application in our society.[1]

Limitations of the Study

This study was limited to the 412 colleges and universities in the United States and its territorial possessions classified as members or eligible nonmembers of the American Association of State Colleges and Universities and the National Association of State Universities and Land Grant Colleges.

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[1]Technical Education: Less than Baccalaureate Level Programs in Higher Education, Eastern Kentucky University, 1967.

Also, the study was limited to the extent that the participating institutions accurately represented the entire population of such institutions included in the study.

The accuracy of the data was limited to the extent that the respondents correctly interpreted and supplied valid responses to the items on the information forms. Comparisons of the results of this study and those of the similar study carried out in 1967 were limited to the extent that the populations and respondent groups for the two studies were not identical. The 1967 study was based on responses from 282 institutions, of a population of 367. The current study was based on responses from 328 institutions, of a population of 412.

SOURCE OF DATA AND METHOD OF STUDY

Population

Members and eligible nonmembers of the American Association of State Colleges and Universities and the National Association of State Universities and Land Grant Colleges were invited to participate in the study. Each of these institutions was mailed an introductory letter,[2] a copy of "Information Form for Technical Education Programs of Less than Baccalaureate Level Offered On the Main Campus,"[3] and a copy of "Information Form for Technical Educatuion Programs of Less than Baccalaureate Level Offered Off the Main Campus,"[4] and an addressed return envelope.

Of 412 institutions contacted, 328 or 79.6 per cent returned usable information forms, as indicated in Table I. (See page 4)

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[2]See Appendix A

[3]See Appendix B

[4]See Appendix C

TABLE I

DISTRIBUTION OF ELIGIBLE AND PARTICIPATING INSTITUTIONS

State or Territory	Number of AASCU Institutions		Number of NASULGC Institutions		Total		
	Eligible and Contacted	Partici-pated	Eligible and Contacted	Partici-pated	Eligible and Contacted	Partici-pated	Per Cent of Response
Alabama	7	4	3	3	10	7	70.0
Alaska	0	0	1	0	1	0	0.0
Arizona	1	1	2	2	3	3	100.0
Arkansas	6	4	2	1	8	5	62.5
California	20	12	4	3	24	15	62.5
Colorado	7	5	2	2	9	7	77.8
Connecticut	4	3	2	1	6	4	50.0
Delaware	0	0	2	2	2	2	100.0
District of Columbia	2	0	0	0	2	0	0.0
Florida	4	4	3	3	7	7	100.0
Georgia	12	9	3	3	15	12	80.0
Guam	0	0	1	1	1	1	100.0
Hawaii	0	0	1	0	1	0	0.0
Idaho	3	2	1	1	4	3	75.0
Illinois	7	7	2	2	9	9	100.0
Indiana	2	2	2	2	4	4	100.0
Iowa	1	1	2	2	3	3	100.0
Kansas	4	4	2	1	6	5	83.3
Kentucky	4	4	2	2	6	6	100.0
Louisiana	8	7	2	1	10	8	80.0

TABLE I (Continued)

DISTRIBUTION OF ELIGIBLE AND PARTICIPATING INSTITUTIONS

State or Territory	Number of AASCU Institutions		Number of NASULGC Institutions		Total		
	Eligible and Contacted	Partici-pated	Eligible and Contacted	Partici-pated	Eligible and Contacted	Partici-pated	Per Cent of Response
Maine	6	3	2	3	8	6	62.5
Maryland	7	7	2	1	9	8	88.9
Massachusetts	12	8	2	2	14	10	71.4
Michigan	10	10	3	3	13	13	100.0
Minnesota	6	6	1	0	7	6	85.7
Mississippi	5	5	3	2	8	7	87.5
Missouri	8	7	4	3	12	10	83.3
Montana	4	4	2	2	6	6	100.0
Nebraska	4	2	1	0	5	2	40.0
Nevada	1	0	1	1	2	1	50.0
New Hampshire	2	2	1	1	3	3	100.0
New Jersey	8	6	1	0	9	6	66.7
New Mexico	4	2	2	2	6	4	66.7
New York	16	9	5	5	21	14	66.6
North Carolina	10	10	4	3	14	13	92.8
North Dakota	4	4	2	2	6	6	100.0
Ohio	7	6	4	4	11	10	90.9
Oklahoma	8	7	4	2	12	9	75.0
Oregon	5	4	2	2	7	6	85.7
Pennsylvania	14	8	1	1	15	9	60.0

TABLE I (Continued)

DISTRIBUTION OF ELIGIBLE AND PARTICIPATING INSTITUTIONS

Territory	Number of AASCU Institutions		Number of NASULGC Institutions		Total		
	Eligible and Contacted	Partici-pated	Eligible and Contacted	Partici-pated	Eligible and Contacted	Partici-pated	Per Cent of Response
Puerto Rico	0	0	1	1	1	1	100.0
Rhode Island	1	1	1	0	2	1	50.0
South Carolina	2	2	3	3	5	5	100.0
South Dakota	5	5	2	2	7	7	100.0
Tennessee	6	6	2	2	8	8	100.0
Texas	14	11	6	4	20	15	75.0
Utah	2	1	2	1	4	2	50.0
Vermont	3	2	1	1	4	3	75.0
Virgin Islands	0	0	1	0	1	0	0.0
Virginia	11	7	3	3	14	10	71.4
Washington	4	3	2	2	6	5	83.3
West Virginia	9	9	1	1	10	10	100.0
Wisconsin	8	9	2	1	10	10	100.0
Wyoming	0	0	1	1	1	1	100.0
Total	298	235	114	93	412	328	79.6

Treatment of Data

The only source of data was completed information forms and explanatory letters received from the 328 participating institutions. The data were classified in four categories, based on the enrollment of the participating institutions, (1) less than 5,000, (2) 5,000 - 10,000 (3) 10,000 - 15,000, and (4) over 15,000. This was done in order to make the presentation of the data more meaningful and to make the results more useful to interested institutions. For similar reasons, the data were classified according to their membership or eligibility in the two organizations involved, the AASCU and the NASULGC. Further classification was made according to the nature and purpose of the individual tables.

The distribution of participating institutions by enrollment and institutional classification is presented in Table II.

TABLE II

ENROLLMENT SIZE AND CLASSIFICATION OF PARTICIPATING INSTITUTIONS

Institutional Enrollment	Member or Eligible Nonmember of AASCU	Land Grant	Total
Less than 5,000	123	17	140
5,000 - 10,000	71	22	93
10,000 - 15,000	26	13	39
Over 15,000	15	41	56
Total	235	93	328

STATUS OF LESS-THAN-BACCALAUREATE LEVEL TECHNICAL EDUCATION IN HIGHER EDUCATION

Status of Current Technical Education Programs

Of the 328 participating institutions, 113 (34.5 per cent) offered no technical education programs, as indicated in Table III, (see page 9). The 1967 study indicates practically the same per cent (34.4) of responding institutions not offering technical education.

Seventy-three, or 22.2 per cent of the institutions, offered technical education at the baccalaureate level only. This compares with 25.2 per cent of the total in 1967.

Less-than-baccalaureate level programs were offered in 142 institutions, 43.4 per cent of those participating. The corresponding figures for 1967 were 114 institutions, 40.4 per cent of the total. Of the 142 institutions offering less than baccalaureate level programs, 94 were AASCU institutions. This was 40.0 percent of the total number (235) of responding AASCU institutions.

Table III also indicates that less-than-baccalaureate level technical education programs were available in 40.3 per cent of the institutions with enrollments of 10,000 or less, whereas 50.5 per cent of institutions with enrollments of over 10,000 had such programs available. in 1967, 32.2 per cent of the less-than-10,000 group offered less-than-baccalaureate level programs, while 53.6 per cent of the over-10,000 group offered such programs. This indicates a fairly substantial increase in the percentage of smaller institutions offering less-than-baccalaureate level technical education programs, and a slight decrease in the percentage of larger institutions offering such programs.

TABLE III

LEVEL OF TECHNICAL EDUCATION PROGRAMS OFFERED ON AND OFF THE MAIN CAMPUS IN PARTICIPATING INSTITUTIONS

	Number of Institutions by Enrollment*						
	Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total	Percent of Totals (AASCU - 235, NASULGC - 93)	Percent of Combined Totals (328)
Baccalaureate level only							
	21	23	8	6	58	24.7	21.6
On Campus	(6)	(4)	(2)	(1)	(13)	(14.0)	
On and Off Campus		1 (1)			1 (1)	0.4 (1.1)	0.6
Less-than-baccalaureate level only							
	20	4	1	1	26	11.1	11.3
On Campus	(2)	(1)	(1)	(7)	(11)	(11.8)	
Off Campus	1 (2)			(2)	1 (4)	.4 (4.3)	1.5
On and Off Campus	3	1 (1)		(1)	4 (2)	1.7 (2.2)	1.8
Both levels							
	22	17	8	5	52	22.1	21.6
On Campus	(4)	(6)	(1)	(8)	(19)	(20.4)	
Off Campus				(2)	(2)	(2.2)	0.6
On and Off Campus	2	2 (1)	1	(4)	5 (5)	2.1 (5.4)	3.0

TABLE III (Continued)

LEVEL OF TECHNICAL EDUCATION PROGRAMS OFFERED ON AND OFF THE MAIN CAMPUS IN PARTICIPATING INSTITUTIONS

Program Level	Number of Institutions by Enrollment* Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total	Percent of Totals (AASCU - 235, NASULGC - 93)	Percent of Combined Totals (328)
Baccalaureate level on campus, less-than-baccalaureate off campus	1		(1)	(1)	1 (2)	0.4 (2.2)	0.9
Both levels on campus, less-than-baccalaureate level off campus	2	1 (1)	2		5 (1)	2.1 (1.1)	1.8
Both levels on campus, baccalaureate level off campus				(2)	(2)	(2.2)	0.6
No technical education offered	51 (3)	22 (7)	6 (8)	3 (13)	82 (31)	34.9 (33.3)	34.5
TOTAL	123 (17)	71 (22)	26 (13)	15 (41)	235 (93)	100.0 (100.0)	100.0

*Figures for NASULGC institutions in parentheses

Program Duration of Current Offerings

Data presented in Table IV, indicate that a great majority, 78.3 per cent, of the less-than-baccalaureate level technical education programs was of two years duration. A total of 132 institutions offered 859 two-year programs. The number of programs per school ranged from one to forty-five, the average being 6.5.

TABLE IV

DURATION OF PROGRAMS PRESENTLY OFFERED IN PARTICIPATING INSTITUTIONS

	Number of Programs in Institutions with Enrollments							
Duration	Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total	Number of Institutions	Range	Mean
More than 3, less than 4 years	4	4			8	4	1-4	2.0
3 years	10	10 (1)	1	1 (4)	22 (5)	5 (5)	1-9 (-1)	4.4 (1.0)
2 years	214 (41)	199 (36)	88 (20)	45 (216)	546 (313	86 (46)	1-45 (1-42)	6.3 (6.8)
1 1/2 years				(11)	(11)	(1)	(-11)	(11.0)
1 year	14 (3)	25 (8)	8	1 (13)	48 (24)	23 (14)	1-12 (1-6)	2.1 (1.7)
1/2 year	2 (21)	18		 (2)	20 (23)	3 (2)	1-18 (2-21)	6.7 (11.5)
Less than 1 year	5	59		 (13)	64 (13)	5 (2)	1-55 (1-12)	12.8 (6.5)
Total	249 (65)	315 (45)	97 (20)	47 (259)	708 (389)	126 (69)	1-55 (1-42)	5.6 (5.6)

*Figures for NASULGC Institutions in parentheses

Programs were concentrated at the one-and two-year levels, with only 3.2 per cent of all programs greater than two years in length and 10.9 per cent less than one year in length.

Over all, there was a 13.4 per cent increase in the number of institutions offering less-than-baccalaureate level technical education programs since 1967 (172 in 1967, 195 in 1970). The number of programs offered by these institutions increased from 619 in 1967 to 1097 in 1970, a 77.2 per cent increase. AASCU institutions accounted for 708, or 64.5 per cent, of the 1097 programs offered.

Student Enrollment in Present Programs

The data presented in Table V (see page 13) indicate that a great majority (83.8 per cent) of the students were enrolled in two-year programs. This was to be expected, considering the number of programs at this level. The total enrollment in programs at all levels was 57,145 students. Since a total of 1092 programs reported, the average enrollment per program was 52.0.

Programs in AASCU institutions alone had a total enrollment of 32,363 students.

The most significant aspect of Table V is the increase in enrollment since 1967. The total of 57,145 in 1970 represents an 81 per cent increase over the 31,551 total in 1967.

Addition or Expansion of Less-Than-Baccalaureate Level Technical Programs in Institutions Currently Offering Such Programs

Institutions currently offering less-than-baccalaureate level technical programs were asked whether or not they planned to add additional programs or expand existing ones by 1975. Those who

TABLE V

STUDENT ENROLLMENT IN PRESENT PROGRAMS*

Duration of Program	Student Program Enrollment In Institutions with Enrollment: Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total Program Enrollment	No Enrollment Data Given: Total Number of Programs
More than 3, Less than 4 years	96	125			221	
3 years	158	962 (2)	4	 (230)	1,124 (232)	1
2 years	8,260 (2,039)	7,556 (1,182)	5,992 (682)	3,320 (18,777)	25,128 (27,680)	2
1 1/2 years				(500)	(500)	
1 year	201 (25)	933 (341)	317	5 (218)	1,456 (584)	2
1/2 year	25	450		 (10)	475 (10)	
Less than 1/2 year	97	3,862		 (776)	3,959 (776)	
Total	8,837 (2,064)	13,888 (1,525)	6,313 (682)	3,325 (20,511)	32,363 (24,782)	5

*Figures for NASULGC Institutions in parentheses

planned to add or expand were asked to indicate the nature of the programs to be added or expanded, and the year this was to be done. Those who did not plan to add or expand existing programs were asked to indicate reasons for not doing so.

Table VI indicates that 62 or 43.7 per cent plan to add or expand programs by 1975. However, there was a large number of institutions (56) which either indicated that they were not sure whether programs would be added or expanded or failed to respond to the question. The 1967 study indicated that at that time, 49.1 per cent of the participating institutions offering less-than-baccalaureate level programs planned to expand them or add others by 1970.

TABLE VI

ADDITION OR EXPANSION OF LESS-THAN-BACCALAUREATE LEVEL TECHNICAL EDUCATION PROGRAMS IN INSTITUTIONS PRESENTLY OFFERING SUCH PROGRAMS*

Institutional Enrollment	Plan to Add or Expand Programs	Do Not Plan to Add or Expand Programs	Unknown or No Response	Total
Less than 5,000	21 (3)	6 (1)	20 (4)	47 (8)
5,000 - 10,000	14 (5)	2 (0)	9 (5)	25 (10)
10,000 - 15,000	8 (2)	2 (1)	2 (0)	12 (3)
Over 15,000	1 (8)	2 (10)	3 (13)	6 (31)
Total	44 (18)	12 (12)	34 (22)	90 (52)

*Figures for NASULGC institutions in parentheses.

Of the 98 programs to be added or expanded by 1975, 74.4 per cent (73) were to be of two years duration as indicated in Table VII (see page 15). One half of the programs were planned to be implemented by the end of the 1972-73 academic year.

TABLE VII

PROGRAM DURATION AND YEAR TECHNICAL EDUCATION PROGRAMS OF LESS-THAN-BACCALAUREATE LEVEL ARE TO BE ADDED OR EXPANDED IN INSTITUTIONS PRESENTLY OFFERING SUCH PROGRAMS

Planned Program Duration	Year Programs Are to be Added or Expanded in Institutions with Enrollment																				Program Total
	Less than 5,000							5,000 - 10,000							10,000 - 15,000							Over 15,000							
	70-71	71-72	72-73	73-74	74-75	Yr Unk	Total	70-71	71-72	72-73	73-74	74-75	Yr Unk	Total	70-71	71-72	72-73	73-74	74-75	Yr Unk	Total	70-71	71-72	72-73	73-74	74-75	Yr Unk	Total	
More than 3 yrs but less than 4																													
3 years																													
2 years	9	4	5	1	4		23	7	4	4	4	2		21	1	2	3	3	1	1	11	1					1		56
					(2)		(2)	(3)		(1)	(1)	(1)		(6)		(1)				(1)	(2)	(3)	(1)	(1)		(2)	(7)		(17)
1 year	1						1		1	2				3															4
6 months										1				1		1					1								2
		(1)					(1)																						(1)
Duration Unspecified					3		3				1			1						2	2	1				1	2		8
Totals:																													
70-71															1														1
71-72	10							7							3							2							22
								(3)							(1)							(3)							(7)
72-73		4							5							3							(1)						12
		(1)																											(2)
73-74			5							7							3												15
										(1)														(1)					(2)
74-75				1							5							1											7
											(1)																			(1)
Yr. Unk.					7						2							3							1				13
					(2)						(1)							(1)							(2)				(6)
Program Total						27						26							14							3			70
						(3)						(6)							(2)							(7)			(18)

Twenty-four, or 16.2 per cent, of the institutions currently offering less-than-baccalaureate level technical programs indicated that they did not plan to add or expand programs by 1975. The three reasons given most frequently were (1) technical education was a function delegated to other state institutions, (2) insufficient funds available, and (3) insufficient demand for additional programs (see Table VIII).

TABLE VIII

REASONS WHY LESS-THAN-BACCALAUREATE LEVEL TECHNICAL EDUCATION PROGRAMS ARE NOT TO BE ADDED OR EXPANDED IN INSTITUTIONS PRESENTLY OFFERING SUCH PROGRAMS*

Reasons Given for No Addition or Expansion of Programs	Frequency of Response By Institutional Enrollment: Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total
Technical education is a function delegated to other state institutions	9 (1)	4	3 (1)	3 (10)	19 (12)
Insufficient funds available	6 (1)	1 (1)	1		8 (2)
Inadequate facilities available	4 (1)	1 (1)	1		6 (2)
Difficult to locate qualified staff	1				1
Lack of student interest in present programs	4 (1)	(2)			4 (3)
Insufficient demand for additional programs	4 (1)	2 (2)		1	7 (3)
Sufficient number of programs presently offered		1 (1)	1	1 (2)	3 (3)
Other	1 (1)		1	(1)	2 (2)
No response	35 (4)	22 (7)	8 (1)	2 (12)	67 (24)
TOTAL	64 (10)	31 (14)	15 (2)	7 (25)	117 (51)

*Figures for NASULGC Institutions in parentheses

Addition of Less-Than-Baccalaureate Level Technical Programs In Institutions Not Presently Offering Such Programs

Very few of the 187 institutions not offering less-than baccalaureate level technical programs planned to add programs by 1975. Only seven institutions indicated such plans (Table IX), and they planned only nine programs (Table X, page 18). Table XI, page 19, indicates that the three reasons given most frequently for not adding programs were: (1) Technical education was a function delegated to other state institutions, (2) Technical education was inconsistent with institutional purposes, and (3) Insufficient funds available.

TABLE IX

PLANS FOR ADDITION OF LESS-THAN-BACCALAUREATE LEVEL TECHNICAL EDUCATION PROGRAMS IN INSTITUTIONS NOT OFFERING SUCH PROGRAMS AT PRESENT*

Institutional Enrollment	Plan To Add Programs	Do Not Plan To Add Programs	Unknown or No Response	Total
Less than 5,000	5	42 (6)	25 (3)	72 (9)
5,000 - 10,000	1	30 (4)	14 (7)	45 (11)
10,000 - 15,000		11 (5)	3 (5)	14 (10)
Over 15,000	(1)	6 (7)	4 (8)	10 (16)
TOTAL	6 (1)	89 (22)	46 (23)	141 (46)

*Figures for NASULGC institutions in parentheses.

TABLE X

PLANNED DURATION AND YEAR TECHNICAL EDUCATION PROGRAMS OF LESS-THAN-BACCALAUREATE LEVEL ARE TO BE ADDED IN INSTITUTIONS NOT CURRENTLY OFFERING SUCH PROGRAMS

Planned Program Duration	Year Programs are to be Added in Institutions With Enrollment: Less than 5,000							5,000 - 10,000							Over 15,000							Total
	70-71	71-72	72-73	73-74	74-75	Year Unk.	Total	70-71	71-72	72-73	73-74	74-75	Year Unk.	Total	70-71	71-72	72-73	73-74	74-75	Year Unk.	Total	
2 years		3		1	1	1	6			1				1		(1)				(1)	(2)	7 (2)
Unknown																						
Totals:																						
70-71																						3
71-72	3															(1)						(1)
72-73																						2
73-74		1							1													1
74-75			1																	(1)		1 (1)
Yr. Unk.				1																		
Totals					6					1								(2)				7 (2)

TABLE XI

REASON WHY LESS-THAN-BACCALAUREATE LEVEL TECHNICAL EDUCATION PROGRAMS ARE NOT TO BE ADDED IN INSTITUTIONS NOT CURRENTLY OFFERING SUCH PROGRAMS*

Reasons Given for Not Adding Programs	Frequency of Response By Institutional Enrollment: Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total
Technical education is inconsistent with institutional purposes	28	12 (13)	6 (3)	5 (7)	51 (13)
Technical education is a function delegated to other state institutions	40 (5)	30 (5)	11 (7)	8 (9)	89 (26)
Insufficient funds available	8 (1)	4	1		13 (1)
Insufficient facilities available	7	2	1	1	11
Insufficient student interest in such programs	1 (1)	2	(1)		3 (2)
Insufficient demand in this geographical area for graduates of such programs	(1)	1	—		1 (1)
Faculty opposition to such programs	4				4
Other	6 (1)	5 (3)	1 (1)	1	13 (5)
No response	16 (3)	9 (2)	2 (3)	1 (4)	28 (12)
TOTAL	110 (12)	65 (13)	22 (15)	16 (20)	213 (60)

*Figures for NASULGC institutions in parentheses.

Program Titles

Table XII presents the program titles reported by responding institutions. Sixty different titles are reported in the table, but many of the titles include several related programs. "Business and related," for instance, includes programs in accounting, business administration, and other areas.

TABLE XII

TECHNICAL PROGRAMS OF LESS-THAN-BACCALAUREATE LEVEL PRESENTLY OFFERED IN PARTICIPATING INSTITUTIONS

	Institutional Enrollment				
	Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total
Area Unspecified	4 (9)	194 (19)	30 (25)	33 (148)	462
Secretarial and Clerical	38 (4)	13 (3)	4 (2)	1 (7)	72
Business and Related Programs	23 (2)	25 (3)	11 (1)	 (3)	68
Medical and Health	10 (6)	6 (7)	6 (1)	1 (17)	54
Nursing	23 (3)	6 (5)	2 (1)	1 (6)	47
Agriculture	3	4 (15)	1 (7)	 (4)	34
Drafting, design and drafting	16	8 (1)	1	2 (2)	30
Electronics	13	5 (2)	3 (1)	3	27
Law Enforcement	10 (1)	7	4	 (2)	24
Electrical	8 (7)	2	2	1 (1)	21
Automotive	13	 (1)	1	 (1)	16

TABLE XII (continued)

TECHNICAL PROGRAMS OF LESS-THAN-BACCALAUREATE LEVEL
PRESENTLY OFFERED IN PARTICIPATING INSTITUTIONS

	Institutional Enrollment				
	Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total
General Mining	(16)				16
Data Processing	6 (2)	3	2	2	15
Food Management	(1)	2 (1)	(8)	1 (2)	15
Civil Engineering Technology	6 (1)	2 (1)	1	(3)	14
Engineering Technology (area not specified)	8 (2)			(2)	12
Aviation Technology			3	1 (7)	11
Computer Technology	3 (2)	(2)	1	(3)	11
Building and Construction	5 (1)	(1)	1	(1)	9
Forest Technology, Wood Technology and Related	2 (1)	2 (1)		(3)	9
Graphic Arts	3 (1)	2	1	(1)	8
Metals	6	1	1		8
Industrial Technology	3 (1)	2	1		7
Mechanical Technology	5	(1)	(1)		7
Mechanical Engineering Technology	3	(1)	1	(1)	6
Air-Conditioning	2	1	1	1	5
Chemical	4	1			5
Education	4		1		5

TABLE XII (continued)

TECHNICAL PROGRAMS OF LESS-THAN-BACCALAUREATE LEVEL
PRESENTLY OFFERED IN PARTICIPATING INSTITUTIONS

	Institutional Enrollment				
	Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total
Vocational Industrial, Technical Teacher Education			(4)	(1)	5
Electro-Mechanical	2			(1)	3
Homemaking Supervision			1 (1)	1	3
Industrial Engineering Technology	1		(1)	(1)	3
Merchandising	(1)		1	(1)	3
Resource Management Technology Environmental Health Technology Water Resources	2			(1)	3
Transportation Technology	(1)	(1)	1		3
Welding	3				3
Commercial Art Technology			1	(1)	2
Cosmetology	1	(1)			2
Instrumentation		(2)			2
Library Science	1			(1)	2
Social Science		1		(1)	2
Architectural Engineering Technology	(1)				1
Base Hydraulics	(1)				1
Broadcast Technology	1				1
Cytotechnology		(1)			1

TABLE XII (continued)

TECHNICAL PROGRAMS OF LESS-THAN-BACCALAUREATE LEVEL
PRESENTLY OFFERED IN PARTICIPATING INSTITUTIONS

	Institutional Enrollment				
	Less than 5,000	5,000 to 10,000	10,000 to 15,000	Over 15,000	Total
Airdrome and Powerplant Technology	1				1
Industrial Management				(1)	1
Industrial Media		1			1
Industrial Relations				(1)	1
Materials Technology			(1)		1
Paper Technology			(1)		1
Physical Science Technology	1				1
Plastics	1				1
Radio-TV Servicing	1				1
Recreation Supervision		(1)			1
Science Technology			1		1
Small Arms Process	1				1
Technical Writing				(1)	1
Tele-Communications				(1)	1
Tool and Manufacturing Technology				(1)	1
TOTAL	237 (64)	288 (70)	84 (55)	48 (227)	1073

Trends from 1967-71

One of the purposes of this study was to identify trends in the development of technical programs of less-than-baccalaureate level during the period 1967-71.

TABLE XIII

CHANGE IN ENROLLMENT AND NUMBER OF LESS-THAN-BACCALAUREATE LEVEL PROGRAMS FROM 1967 TO 1971

	1967	1971	Change
Number of Programs	619	1,097	up 77.2%
Total Student Enrollment	31,551	57,145	up 81.1%

The most significant changes during this period was the great increase in both the number of programs and the student enrollment in the programs, as indicated in Table XIII. The number of programs increased from 619 in 1967 to 1097 in 1971, a 77.2 per cent jump in a four-year period. Student enrollment in these programs likewise increased greatly, from 31,551 in 1967 to 57,145 in 1971, or an 81.1 per cent increase.

Findings and Conclusions

The interpretation of the data collected and presented by this study leads to the following conclusions, based on the purposes of the research as set forth on page 2.

1. Member institutions and eligible nonmembers of the AASCU and the NASULGC are involved to a considerable extent in less-than-baccalaureate technical programs and furthermore, their involvement increased sharply during the period 1967-71.
2. The less-than-baccalaureate level programs offered in the participating institutions were mainly two-year programs, but there was a broad range of individual program titles. The average enrollment in the 1097 programs reported was slightly over 52 students per program.
3. Programs planned for addition or expansion by 1975 varied widely in individual titles, but the great majority were planned to be of two years in length.
4. If all the 97 programs planned are implemented by 1975, this would be a substantial increase in the number of programs presently offered, although not nearly so great as the increase from 1967-71.
5. The most significant trend in the development of less-than-baccalaureate level technical programs from 1967-71 was the very sharp increase in both the number of programs offered and the student enrollment in these programs.

APPENDIX A

EASTERN KENTUCKY UNIVERSITY

RICHMOND, KENTUCKY 40475

OFFICE OF THE PRESIDENT

October 26, 1970

Dear Colleague:

Eastern Kentucky University is cooperating with the American Association of State Colleges and Universities and the National Association of State Universities and Land Grant Colleges in a research project designed to ascertain the current status of less than baccalaureate level technical and occupational education programs in institutions of higher education. From this study we hope to identify the extent of current involvement in such programs, the projected involvement by 1975, and the trends since 1967 in the development of these programs. This study was first carried out in 1967, and the report has been very valuable to many people and organizations concerned with higher education.

For the purpose of this study, technical education programs are defined as those occupational curricula that combine general education with technical information and practical skill development experiences necessary for individuals who wish to enter into and subsequently succeed in occupations that require an understanding of the laws of science and technology and their application in our society. I would emphasize, however, that we are concerned with all associate degree and less than baccalaureate level programs.

I will appreciate it very much if you will assist us, in the following manner, in gathering the data that we need for this study:

1. Complete the enclosed information forms and return to me at your earliest convenience. The forms have been constructed to facilitate speed in completion and thereby minimize the imposition being made upon your busy schedule.

2. Send copies of pages 23, 24, and 25 of your institution's Higher Education General Information Survey, "Degrees and Other Formal Awards Conferred Between July 1, 1969, and June 30, 1970." These pages contain data regarding less than baccalaureate level programs.

You have my assurance that all information contributed will be treated in a manner that will not identify institutions or individuals, and you will be provided with a summary of the study. Please accept my thanks, in advance, for your cooperation.

Cordially yours,

Robert R. Martin

Robert R. Martin
President

INFORMATION FORM FOR TECHNICAL EDUCATION PROGRAMS OF LESS THAN BACCALAUREATE LEVEL

OFFERED ON THE MAIN CAMPUS

Directions: Please respond below to items 1, 2, 3 and others applicable as indicated. Although the form is designed to facilitate ease and speed in completion, please feel free to expand response categories where necessary.

1. What is the current total student enrollment on the main campus of your institution? _____

2. Are baccalaureate level technical programs being offered at your institution? _ Yes _ No

3. Are technical programs of less than baccalaureate level currently being offered at your institution? _ Yes _ No

If you checked YES in 3 above, please complete only applicable items 4 through 7 and item 11 below.
If you checked NO in 3 above, please complete only applicable items 8 through 10 and item 11 below.

* * * *

APPENDIX C

INFORMATION FORM FOR TECHNICAL EDUCATION PROGRAMS OF LESS THAN BACCALAUREATE LEVEL OFFERED IN OFF-CAMPUS EXTENSION CENTERS, COMMUNITY COLLEGES, ET CETERA

Directions: Please respond below to items 1, 2, 3, and others applicable as indicated. Although the form is designed to facilitate ease and speed in completion, please feel free to expand response categories where necessary.

1. How many off-campus centers are operated by your institution? _____ What is the total current enrollment at these centers? _____

2. Are baccalaureate level technical programs offered at your off-campus centers? __ Yes __ No

3. Are technical programs of less than baccalaureate level currently offered at your off-campus centers? __ Yes __ No
   If so, in how many centers are such programs offered? _____

If you checked YES in 3 above, please complete only applicable items 4 through 7 and item 11 below.
If you checked NO in 3 above, please complete only applicable items 8 through 10 and item 11 below.

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